

Date: Thursday, 8/23/2007 11:53:30 AM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: DOUBLER
Job Number	: 34245		
Estimate Number	: 11318		
P.O. Number	: N/A	Part Number	: D33023
This Issue	: 8/23/2007 S.O. No. : N/A	Drawing Number	: D3302 REV B2
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : MACHINED PARTS	Drawing Revision	: B2
Previous Run	: 29943	Material	: N/A
Written By	: <u>LA</u>	Due Date	: 9/3/2007
Checked & Approved By	: <u>LA 07.08.23</u>	Qty:	12 Um: Each
Comment	: Est A 04.09.02 New issue KJ/JLM		
	: Est B 06.05.02 Water jet EC		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M6061T6S063	6061-T6 .063 Sheet
-----	-------------	--------------------



Comment: Qty.: 1.0428 sf(s)/Unit Total : 10.4276 sf(s)  
 6061-T6 .063 Sheet  
 Material: 6061-T6 (QQ-A-250/11) 0.063" thick  
 (M6061T6S.063)  
 Identify for D3302-3  
 Batch: M105225

SAD 07/07/25

2.0	WATER JET	FLOW WATER JET
-----	-----------	----------------



Comment: FLOW WATER JET  
 1-Cut as per Dwg D3302  
 Dwg Rev: B2  
 Prog Rev: B2

2-Deburr if necessary

SAD 07/08/25

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

SAD 07/08/25

4.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

EC 07/09/20 (12)

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: D Date: 01/12/13  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 8/23/2007 11:53:30 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER

Job Number: 34245

Part Number: D33023

Job Number:



Seq. #:

Machine Or Operation:

Description:

5.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



07/12/10 (12)



Comment: SMALL & MEDIUM FAB RESOURCE 1

Deburr break all unmarked sharp edges 0.005 to 0.010

SAD

07/09/06

(12)

6.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Form as per Dwg D3302

SB

07/12/11

(12)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/12/11

(X12)

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

JS

07-12-12

(X12)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

JS

07/12/12

(12)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

ST 235

JS

07/12/13

(X12)

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/12/13

Job Completion



2007/12/13

W

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

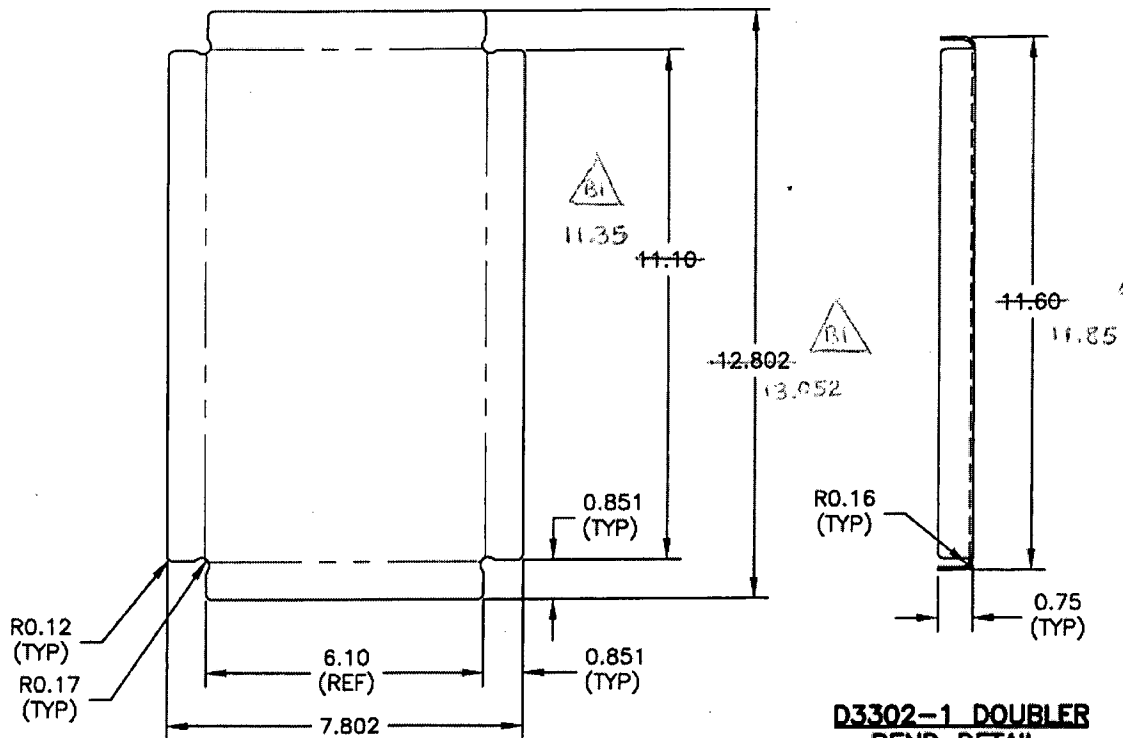
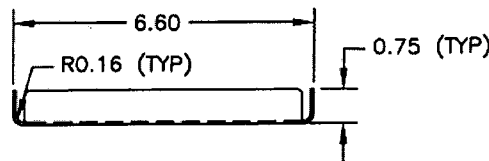
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



**DART**

DESIGN T#	DRAWN BY T#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H#	APPROVED H#	DRAWING NO. D3302	REV. B SHEET 1 OF 4
DATE 04.11.18		TITLE DOUBLER	SCALE 1:4
A	04.07.06	NEW ISSUE	
B	04.11.18	REMOVE HOLES	
B1	RF 04.12.15	ADDED 0.25" TO THE LENGTH FOR -1/-3	
B2	RF 05.03.21	7.25 WAS 7.34 ; 8.952 WAS 9.042 ; 7.75 WAS 7.84 FOR D3302-3	

**RELEASED**  
04.11.23 H#**D3302-1 FLAT PATTERN****D3302-1 NOTES:**

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M6061T6S-003)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER

SHOP COPY  
RETURN TO  
ENGINEERINGUNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE

WORK ORDER

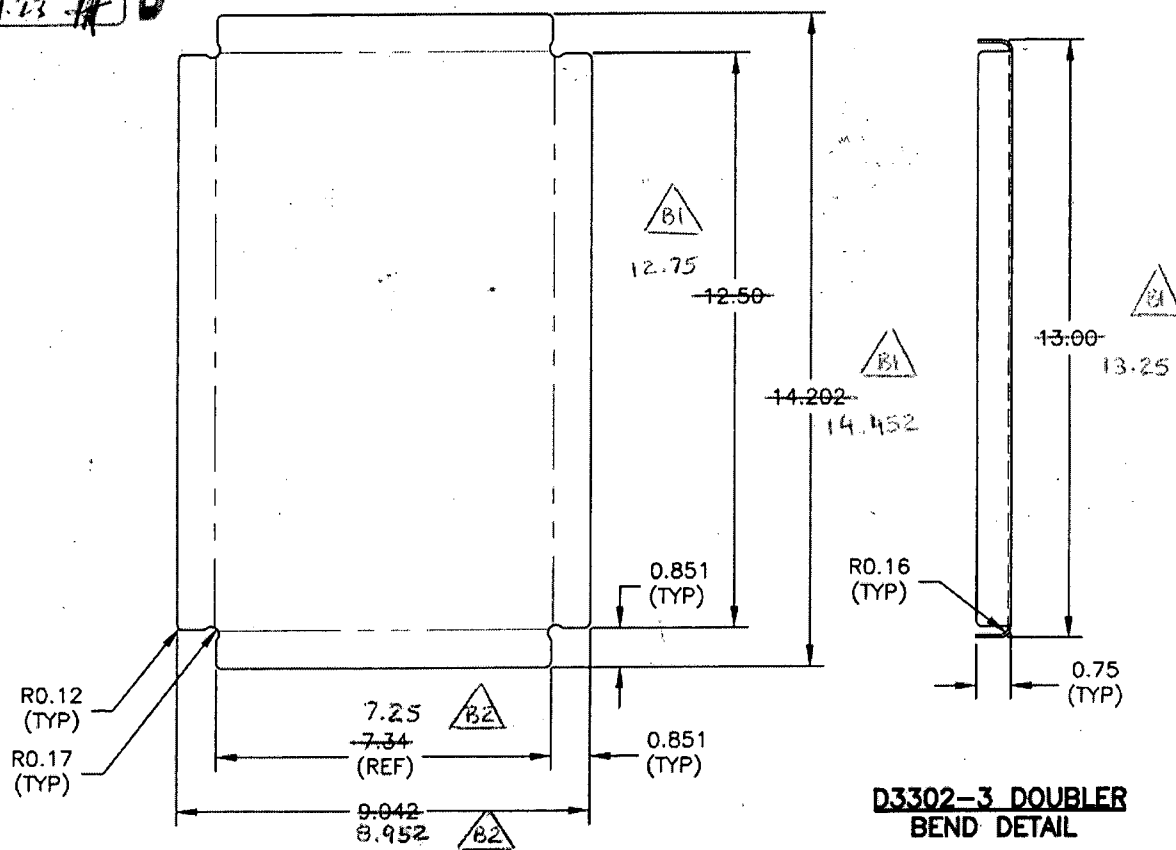
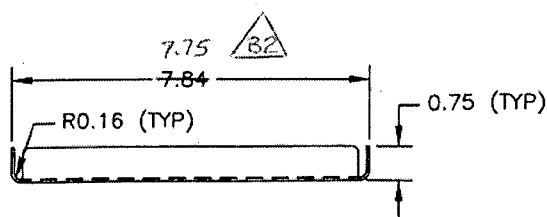
NO. 34245

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

**DART**

DESIGN <i>RT</i>	DRAWN BY <i>RT</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3302	REV. B SHEET 2 OF 4
DATE 04.11.18		TITLE DOUBLER	SCALE 1:4

**RELEASED**  
04.11.23 *#***D3302-3 FLAT PATTERN****D3302-3 NOTES:**

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M6061T6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & BATCH USING FINE POINT PERMANENT MARKER

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 34245

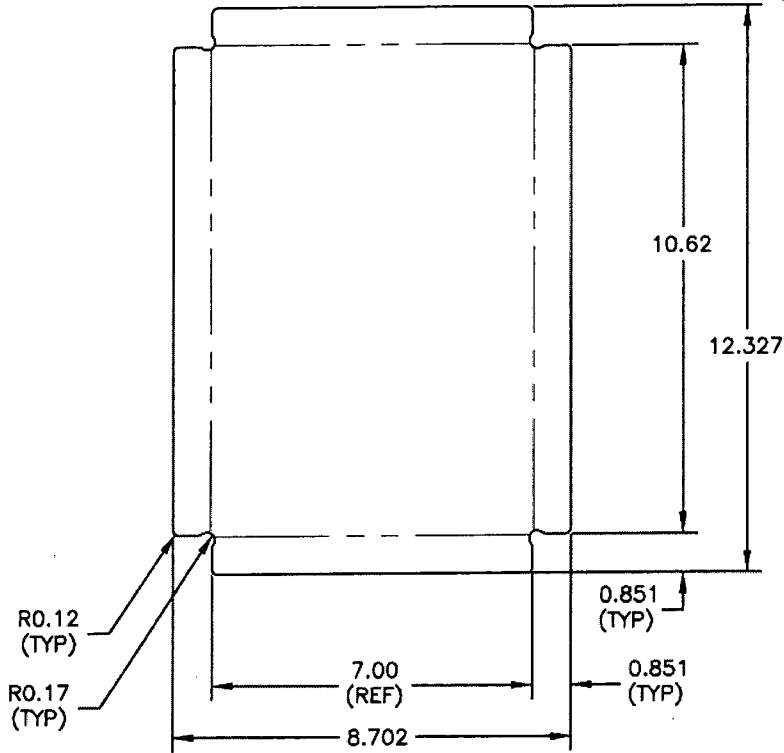
**Copyright © 2004 by DART AEROSPACE LTD**

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED, OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

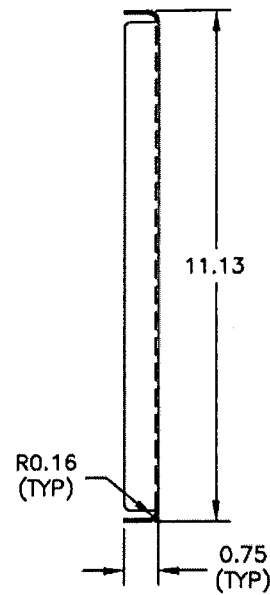


DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3302	REV. B SHEET 3 OF 4
DATE 04.11.08		TITLE DOUBLER	SCALE 1:4

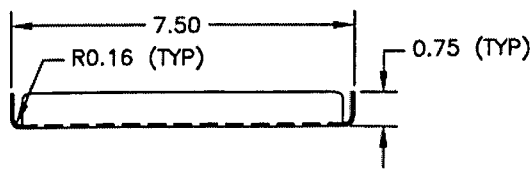
RELEASED  
04.11.23 [Signature]



**D3302-5 FLAT PATTERN**



**D3302-5 DOUBLER BEND DETAIL**



**D3302-5 NOTES:**

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (REF. DART SPEC. M6061T6S.063)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER

SHOP COPY  
TURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 34245

Copyright © 2004 by DART AEROSPACE LTD

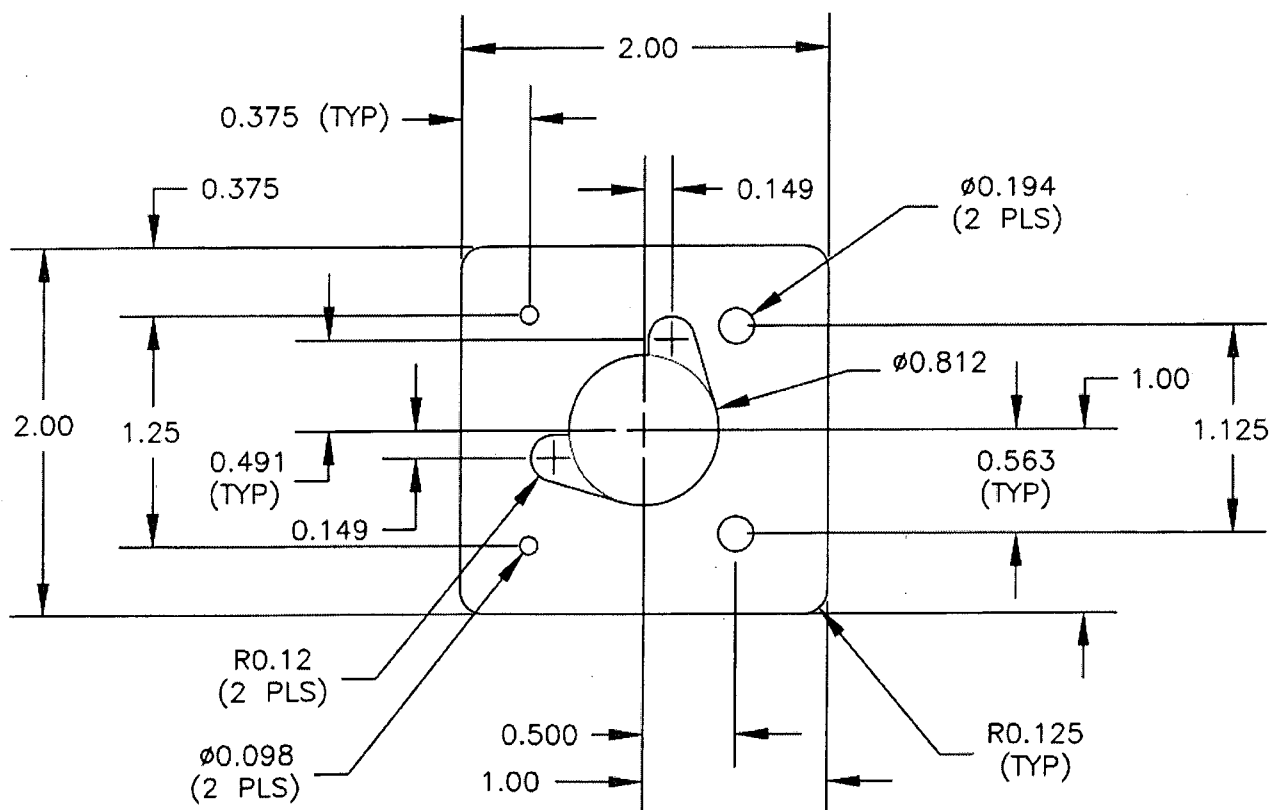
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.





DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3302	REV. B SHEET 4 OF 4
DATE 04.11.18		TITLE DOUBLER	SCALE 1:1

RELEASED  
04.11.23 [Signature]



**D3302-7**

**D3302-7 NOTES:**

- 1) MATERIAL: 5052-H32 OR 6061-T6 (QQ-A-250/8 OR QQ-A-250/11)  
0.040 THICK (REF. DART SPEC. M5052H32S.040)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) IDENTIFY WITH DART P/N & B/N USING FINE POINT PERMANENT MARKER

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE

WORK ORDER  
NO. 34245

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.